

WHAT IS CLAIMED IS:

1. A method for notifying/communicating at least one failure message from at least one source to at least one destination, the source served by a first network and the destination served by a second network, comprising the steps of:

receiving at an interworking facility a first frame which includes a failure notification message and a first destination address in a first format compatible with said first network;

forming a second frame of a second format compatible with the second network, the second frame including the failure notification message; and

mapping the first destination address to a second destination address specifying in the second format the address of the destination in the second network so that the second network, upon receipt of the second destination address, can route the second frame to the destination.

2. The method according to claim 1, wherein said failure notification message includes automated Operations, Administration and Management traffic.

3. The method according to claim 1 wherein the first frame has an Ethernet format and wherein the first destination address comprises a Virtual Local Area Network (VLAN) tag within the Ethernet-formatted first frame.

4. The method according to claim 3 wherein the second frame has an Asynchronous Transport (ATM) format and wherein the second destination address comprises an ATM Permanent Virtual Circuit (PVC) tag.

5. The method according to claim 4 wherein the mapping of the first destination address to the second destination address comprises the step of mapping the VLAN tag to the ATM PVC VPI/VCI values.

6. The method according to claim 4 wherein the interworking facility interworks the Ethernet format frames with the ATM format frames by the steps of:

receiving at the interworking facility an Ethernet-formatted first frame with the corresponding VLAN tag;

matching the VLAN tag of the first destination with the corresponding PVC VPI/VCI values of the second destination address using a mapping table;

converting the Ethernet-format frame to the ATM format frame; and

sending the ATM format frame with the corresponding PVC tag to the destination served by the second network.

7. The method according to claim 1 wherein the first frame has an Asynchronous Transport (ATM) format and wherein the first destination address comprises an ATM PVC VPI/VCI .

8. The method according to claim 7 wherein the second frame has an Ethernet format and wherein the second destination address comprises a VLAN tag within the Ethernet-formatted first frame.

9. The method according to claim 8 wherein the mapping of the first destination address to the second destination address comprises the step of mapping the ATM PVC VPI/VCI to the VLAN tag.

10. The method according to claim 9, wherein the interworking facility interworks the ATM format frames with the Ethernet format frames by the steps of:

receiving at the interworking facility an ATM-formatted first frame with the corresponding PVC VPI/VCI value;

matching the VPI/VCI of the first destination address with the corresponding VLAN tag of the second destination address using a mapping table;

converting the ATM-format frame to the Ethernet format frame; and

sending the Ethernet format frame on the corresponding VLAN tag to the destination served by the second network.

11. The method of claim 1 wherein said failure notification message includes failure in a link between the source and the first network.

12. The method of claim 11 wherein said link failure is detected by the source.
13. The method of claim 11, wherein said link failure is detected by the first network.
14. The method of claim 11 wherein said source is an Ethernet router and said first network is an Ethernet network.
15. The method of claim 11, wherein said source is an ATM router and first network is an ATM network.
16. The method of claim 1 wherein said failure notification message includes multiple failures in links between the sources and the first network.
17. The method of claim 16 wherein said multiple link failures are detected by the first network.
18. The method of claim 17 wherein said first network is an Ethernet network.
19. The method of claim 17 wherein said first network is an ATM network.

20. A network system for notifying/communicating at least one failure message from at least one source to at least one destination, said system comprising:

a first network associated with the source, generates a first frame, said first frame includes a failure notification message and a first destination address in a first format compatible with the first network;

a second network associated with the destination having a second destination address;
and

an interworking facility receives the first frame, forms a second frame of a second format compatible with the second network, and maps the first destination address to a second destination address specifying in the second format the destination address in the second network, so that the second network upon receipt of the second destination address routes the second frame to the destination, wherein said second frame includes the failure notification message.

21. The system according to claim 20, wherein said failure notification message includes automated Operations, Administration and Management traffic.

22. The system according to claim 20 wherein the first frame has an Ethernet format and wherein the first destination address comprises a Virtual Local Area Network (VLAN) tag within the Ethernet-formatted first frame.

23. The system according to claim 22 wherein the second frame has an Asynchronous Transport (ATM) format and wherein the second destination address comprises an ATM Permanent Virtual Circuit (PVC) VPI/VCI value.
24. The system according to claim 20 wherein the first frame has an Asynchronous Transport (ATM) format and wherein the first destination address comprises an ATM PVC VPI/VCI value.
25. The system according to claim 24 wherein the second frame has an Ethernet format and wherein the second destination address comprises a VLAN tag within the Ethernet-formatted first frame.
26. The system according to claim 20, wherein said source includes at least one Ethernet router.
27. The system according to claim 20, wherein said destination includes at least one ATM router.
28. The system according to claim 20, wherein said destination includes at least one frame relay router.

29. The system according to claim 20, wherein said interworking facility includes Ethernet Interworking Switch.

30. The system according to claim 20, wherein said second network includes Frame Relay Edge Switch.